

Remarks

Reconsideration and allowance of all application claims are respectfully requested by reason of the above amendments and the following comments. At the outset, the applicants appreciate greatly, the Examiner pointing out allowable subject matter of the present invention.

The Claims 10, 12, and 22 have been amended to cover come the rejections under 35 U.S.C. § 112. The informalities of the drawings have been overcome by the submission of the above amendment thereto and accompanying drawings. The rejection of Claims 1, 2, 4, 6, 17-20 and 23 under 35 U.S.C. § 102(b) as being anticipated by Reisenfeld (US Patent 4,887,280) is traversed. The rejection of rejection of Claims 3, 5, 7-8, 13-16, 21 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Reisenfeld (US Patent 4,887,280) is traversed.

The rejection of Claims 5 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Reisenfeld (US Patent 4,887,280) in view of Gabara is traversed. The rejection of Claims 7 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Reisenfeld (US Patent 4,887,280) in view of Torgow et al. ("Bandpass Filters with Steep Skirt Selectivity"; Torgow et al.; PTGMTT International Symposium Digest, 1964, Vol. 64, Issue 1, May 1964, Pages 22-26) is traversed. The rejections of Claims 13 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Aronson et al. (US Published Patent Application No. 09/777,917) in view of Reisenfeld (US Patent 4,887,280) and further in view of Doh et al. (US Patent 6,684,033) are traversed.

The Reisenfeld reference is not properly used within the meaning of 35 U.S.C. § 102(b). Anticipation requires that a reference contain within its four corners all the elements of the claimed invention. As will be explained, the Reisenfeld reference does not satisfy the standards for a proper anticipation rejection.

In contrast to the present invention, the Reisenfeld reference is directed to multiple data rate detector which examines the power spectral density of received signal and determines whether the signal is within one of N known data rate ranges. The receiver parameters may then be optimized on the basis of the data rate range determination.

CLAIM 1

Claim 1 of the present invention recites among other features: a data rate detector, comprising: an input interface to receive a digital signal having a data rate that is one of at least two known data rates; a passing frequency-selective filter assembly coupled to the input interface and includes a first filter to pass a signal when at least a selected difference of spectral power at a first selected filtered frequency exists between the one known data rate of the signal relative to the other of the two known data rates of the filter; and, a signal detector coupled to the filter to detect the passed signal and output a data rate signal related thereto.

To reject claim 1, the Examiner equates: element 64 of the Reisenfeld reference to the claimed “input interface”; element 32 of the Reisenfeld reference to the claimed “passing frequency-selective filter assembly that includes a pass filter to pass a signal when at least a selected difference of spectral power at a first selected filtered frequency exists between the one known data rate to the signal relative to the other of the two known data rates of the filter”; and, element 48 of the Reisenfeld reference to the claimed signal detector coupled to the filter.

In contrast to the claimed invention, the Reisenfeld reference teaches that element 32 is a second channel for the I' and Q' components of the received signal S(t) for filtering and power detection. The second channel 32 provides a second input to the comparator 46. The second channel 32 includes bandpass filters 48 and 50. The bandpass filter 48 operates on the I' component and the bandpass filter 50 works on the Q component. The power comparator 46 compares the power associated with the low pass representation of the I and Q components to the power associated with the bandpassed representations of the same signals.

Thus, the second channel 32 (element 32) relied upon by the Examiner operates in completely different manner than what is called for in claim 1. Hence, there can be no anticipation. Neither is the invention obvious because the Reisenfeld reference operates in a completely different manner doing different functions. The Reisenfeld reference or the other references of record contain no suggestions or motivations that teach that the Reisenfeld second channel 32 could be modified to perform in the manner as is presently claimed. To do so would alter the second channel 32 to perform in a manner not intended. Any modification would seemingly cause channel 32 to operate in a manner that would go against the basic teachings of the Reisenfeld reference.

Not only is claim 1 patentable, but so are the dependent claims 2-12. The latter claims are patentable not only by reason of their dependency, but also because of the subject matter set forth therein.

CLAIM 17

Independent claim 17 is similar to claim 1 and should be considered patentable as well as any dependent claims.

CLAIMS 13 AND 24

The Applicants traverse the rejection of claims 13-16, 21 and 24 under 35 U.S.C. §103(a) as being unpatentable over Reisenfeld (US Patent 4,887,280).

CLAIM 13

Claims 13 and 16 under 35 U.S.C. §103(a) as being unpatentable over Aronson et al. (US Published Patent Application No. 09/777,917) in view of Reisenfeld (US Patent 4,887,280) and further in view of Doh et al. (US Patent 6,684,033) is traversed.

13. (Original) An optical transceiver, comprising: (a) an optical receiver having a photodetector to receive an optical input and a transimpedance amplifier to generate an output electrical signal in response thereto; (b) a frequency-selective filter assembly coupled to the input interface and includes a first filter to pass a signal when at least a selected difference of spectral power at a first selected filtered frequency exists between one known data rate relative to the other of two known data rates; and, a signal detector coupled to the filter to detect the passed signal and output a data rate signal related thereto; (c) a post amplifier connected to the signal rate detector and the optical receiver; (d) a host interface connected to couple outputs of the signal rate detector and the post amplifier to a host system and in response to the output of the signal rate detector, the optical receiver and/or the transimpedance amplifier and/or the post amplifier and/or the host adapt to a rate of transmission of the optical input.

The Examiner's rejection is based on hindsight. As noted above, Reisenfeld is not anticipatory and in any event contains no teachings which would suggest modifying the optical transceiver of the Aronson patent. Aronson is merely related to a controller for the transceiver which includes memory for storing information related to the transceivers. The Reisenfeld reference is not even concerned with operating with optical transceivers nor is it seen how it can be. As noted, the Reisenfeld reference is not achieving the claimed steps nor would the reference be fairly construed to achieve the claimed steps. It seems as if the Examiner's proposed modification would render both of the references incapable of performing their intended functions. Only the present disclosure contains any motivation for combining the references. Given the absence of the prior art teachings for the combination, it is clear the Examiner is relying upon hindsight. Accordingly, it is respectfully submitted that the rejection should be withdrawn and the claims passed to issue.

Hence, claim 13 is patentable as well as its dependent claims. Claim 24 is similar to claims 1 and 13 and is patentable for the similar reasons as expressed above.

35 U.S.C. 112.

Claims 10, 12 and 22 have been amended to overcome the rejections under 35 U.S.C. 112.

CONCLUSION

In view of the foregoing comments and amendments, the Applicants respectfully submit that all of the pending claims (i.e., claims 1-24) are in condition for allowance and that the application should be passed to issue.

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Respectfully submitted,

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MARKED UP VERSION

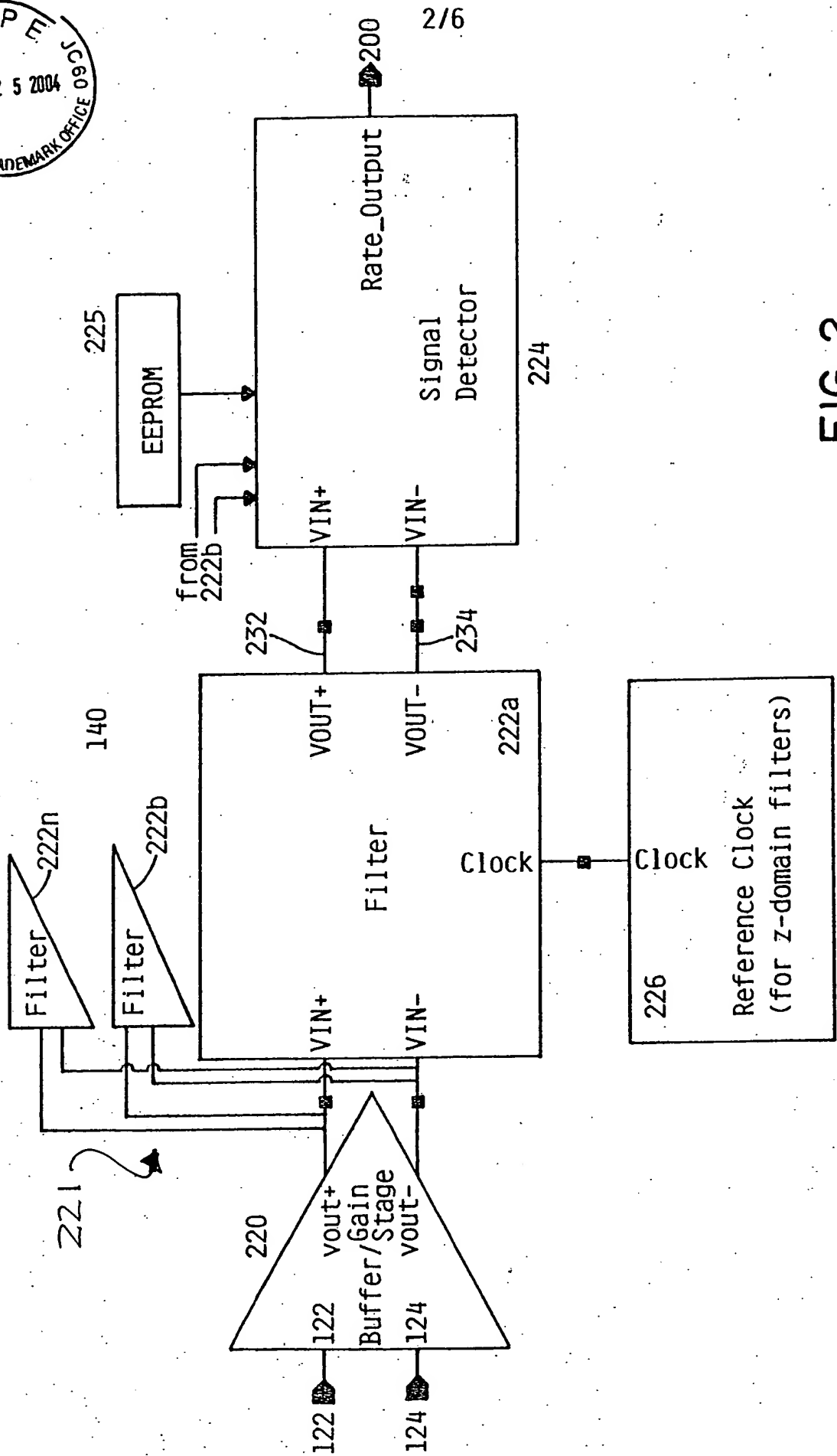


FIG. 2